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|---|-------------|----------------------|---------------------|------------------|
| 09/989,677  | 11/20/2001  | Kevin Dowling        | C01104/70095        | 9718             |
| 37462   | 7590        | 06/02/2005           | EXAMINER            |                  |
| LOWRIE, LANDO & ANASTASI<br>RIVERFRONT OFFICE<br>ONE MAIN STREET, ELEVENTH FLOOR<br>CAMBRIDGE, MA 02142 |             |                      | PHILOGENE, HAISSA   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2828                |                  |

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/989,677

**Applicant(s)**

DOWLING ET AL.

**Examiner**

Haissa Philogene

**Art Unit**

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14, 18-20, 34-47 and 51-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 18-20, 34-47 and 51-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/14/04 & 10/08/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Prosecution on the merits of this application is reopened on claims 1-14, 18-20, 34-47 and 51-53 considered unpatentable for the reasons indicated below:

#### ***Claim Objections***

Claims 8 and 41 are objected to because of the following informalities: In claim 8, line 5, change "at least two power wherein the power" to --at least two controllers wherein the controllers--and in line 7, change "power" to --controllers--.. In claim 41, lines 5 and 7, change "power sources" to --controllers--.. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **1-4, 13 and 34-37 and 46** are rejected under 35 U.S.C. 102(b) as being anticipated by Miffitt et al., Patent No. 4,957,291.

As per claims 1 and 34, Miffitt discloses in Fig.3 an information system and method thereof, comprising: a receiver (38) for receiving an information signal (position of tetrahedron 10); an LED illumination device (16) wherein the illumination device further comprises an input connection (as shown); a processor (34) for converting the information signal into an illumination control signal; and a controller or LED driver integrated in processor (34) for communicating the illumination control signal to the

input connection wherein the illumination device (16) changes color corresponding to the information signal (see also Col.1, lines 33-39, 48-52, Col.3, lines 11-25).

As per claims 13 and 46, Miffitt discloses the claimed invention substantially as explained above. Further, Miffitt discloses the hue of the color (red, green or yellow) of the LEDs (16) representing the received information as to which game is to be played.

As per claims 2, 3, 35 and 36, Miffitt discloses the information signal is generated from an information transmission from the tetrahedron (10); said information signal comprising of a status information (top node, see Col.3, lines 38-42).

As per claims 4 and 37, Miffitt discloses the processor (34) being a microprocessor.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **5 and 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miffitt et al. in view of Hyatt, Patent No. 4,342,906 and Matthias et al., Patent No. 5,165,778.

Miffitt discloses the claimed invention substantially as explained above. Further, Miffitt discloses the illumination device comprises at least two LEDs (16) wherein the at least two LEDs produce at least two different spectra, say at least red LED and green LED; at

Art Unit: 2828

least two controllers or drivers integrated with processor (34) having outputs PC0 and PC1 wherein the controllers independently control power delivered to the at least two LEDs via said outputs (as shown in Fig.5); the at least two controllers or drivers inherently having a signal input wherein the signal input is associated with the processor since they form an IC (34); the at least two controllers being responsive to signals communicated to the signal input from the processor. Miffitt does not disclose a second processor, and a light transmissive material wherein the LEDs are arranged to illuminate the light transmissive. Hyatt discloses in Fig.1 an information system having an illumination device capable of being an LED illumination device (Col.24, lines 17-23) which comprises a second processor (116). Matthias discloses an information system having a light transmissive material (87, 125) encapsulating a plurality of LEDs (21) wherein the LEDs (21) are arranged to illuminate the light transmissive material (see Figs 1, 8 and 10 and Col.9, lines 67-68). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the second processor as taught by Hyatt into the Miffitt type system, because it would ensure processing of any received signals. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to further employ the light transmissive material as taught by Matthias into the Miffitt type system, because it would ensure a system that is not hazardous and that has a long operating life and that is adaptable to a wide variety of decorative objects.

Art Unit: 2828

Claims **6-8, 14, 18-20, 39-41, 47 and 51-53** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miffitt et al in view of Matthias et al., Patent No. 5,165,778. As per claims 6, 8, 14, 39, 41 and 47, Miffitt discloses in Figs. 2, 3 and 5 an information system and method thereof, comprising: an LED illumination device (16) wherein the illumination device comprises at least two LEDs (16) wherein the at least two LEDs produce at least two different spectra, say at least red LED and green LED; a processor (34); at least two controllers or drivers integrated with processor (34) having outputs PC0 and PC1 wherein the controllers independently control power delivered to the at least two LEDs via said outputs (as shown in Fig.5); the at least two controllers or drivers inherently having a signal input wherein the signal input is associated with the processor since they form an IC (34); the at least two controllers being responsive to signals communicated to the signal input from the processor; and a signal input connection via PA0 or PA1 or PA2 wherein the signal input connection is associated with the processor (34), wherein the processor (34) converts the information signal provided via power sensor switch (38) into an illumination control signal and the illumination device (16) changes color corresponding to the information signal. Miffitt does not explicitly disclose a light transmissive material wherein the LEDs are arranged to illuminate the light transmissive material. Matthias discloses an information system having a light transmissive material (87, 125) encapsulating a plurality of LEDs (21) wherein the LEDs (21) are arranged to illuminate the light transmissive material (see Figs 1, 8 and 10 and Col.9, lines 67-68). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the light

Art Unit: 2828

transmissive material as taught by Matthias into the Miffitt type system, because it would ensure a system that is not hazardous and that has a long operating life and that is adaptable to a wide variety of decorative objects.

As per claims 18 and 51, Miffitt in view of Matthias discloses the claimed invention substantially as explained above. Further, Miffitt discloses in Figs 3 and 5 the information system having the processor (34) readable as a computer peripheral since it contains input and output ports (as shown).

As per claims 7, 19, 40 and 52, Miffitt in view of Matthias discloses the claimed invention substantially as explained above. Further, Miffitt discloses the processor (34) being a microprocessor.

As per claims 20 and 53, Miffitt in view of Matthias discloses the claimed invention substantially as explained above. Further, Miffitt discloses the at least two controllers or LED drivers integrated in the microprocessor (34) as being voltage controllers (see Col.4, lines 7-13).

Claims **9-12 and 42-45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miffitt et al. in view Matthias et al. as applied to claim 8 above, and further in view of Hyatt.

As per claims 9 and 42, Miffitt et al. in view Matthias et al. discloses the claimed invention substantially as explained above except for a second processor being associated with the processor wherein said second processor converts an information signal to lighting control signals and communicates said lighting control signals to the

Art Unit: 2828

processor. Hyatt discloses in Fig.1 an information system having a second processor (116) being associated with a processor (128) wherein said second processor (116) converts an information signal (114) from a photosensor (134) to lighting control signals (120, 124) and communicates said lighting control signals (120, 124) to the processor (128) for precisely controlling illumination or lighting for communication of information. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to the second processor as taught by Hyatt into the Miffitt et al. in view Matthias et al. type system, because it would allow a precise control of illumination for communication of information, thereby improving the efficacy of the system.

As per claims 10-12 and 43-45, Miffitt et al. in view Matthias et al. and further in view of Hyatt discloses the claimed invention substantially as explained above. In addition, Hyatt discloses in Fig.1 a user interface (127) capable of being a computer (251, see Fig.2c) associated with the second processor (116) capable of being a microprocessor.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pomerantz et al., Patent No. 4,372,054 .



Art Unit: 2828

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haissa Philogene whose telephone number is (571) 272-1827. The examiner can normally be reached on 6:30 A.M.-6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MinSun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hp

Haissa Philogene  
Primary Examiner  
Art. 2828  
